Nursing Home Levels of Care Determinations from MDS Assessment Data

Clinical Logic Briefing

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Briefing on MDS LOC Logic

- Automated expert system that assigns NH LOCs (ISN, SNF, ICF1, ICF2, & "No level") from Full MDS
- ~20-minute web-cast on the MDS Logic's use
- Longer briefing only for those wanting to understand the full MDS LOC logic
- All Q & A's will be posted at

http://dhfs.wisconsin.gov/rl_DSL/Training/index.htm

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MDS LOC LOGIC WILL

- NOT AFFECT NH RATES by LOC!
- ONLY DO "NH ELIGIBLE or INELIGIBLE, i.e., "No Level"– (More on this later)
- NOT BE USED FOR MINIMAL STAFFING REQUIREMENTS in 2006
- BQA will explain, then back to the logic

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NH STAFFING & LOC

- Statutes do refer to LOCs (ISN, SNF, ICF1&2) for MINIMAL STAFFING requirements
- Paul P from BQA will address that issue now
- As implementation is decided, DHFS will notify stakeholders

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LOC & RATES

- WI NH reimbursement changing to RUGs
  - Implementation still being decided w/ NH Reps
  - May be 50% RUGS 7/2006, eventually 100%
- Basically LOCs will be “frozen” (extended) for existing MA residents
- LOC is still needed for “NH Eligibility” (e.g., “No LOC”), as RUGS doesn’t do that

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MDS Logic Limited to “NH Eligibility”

- MDS LOC Logic will be PHASED IN:

- NH ELIGIBILITY For NEW ADMISSIONS
- NH ELIGIBILITY For New MA (switching payors)

- DHFS RN review of all “No Levels”
- Same appeals processes

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"No Level" Results

- MDS LOC Logic is NOT tied to deinstitutionalization!
- LOC logic developed to match BQA decisions as much as possible
- Deinstitutionalization is a broad goal of DHFS, but is NOT reached thru "No Levels"
- Choice of residence does not hinge on LOC
- Need Waiver eligibility (=NH eligible)

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Individuals Found "No LOC"

- 99 people out of 20,830 NH residents
- Many of them use walker, cane, perhaps chair for long distances
  - (Bias vs. needs)
- Perhaps med set up, or might be independent with meds
- Probably MDS not filled out accurately
- No surprises—DHFS will ask for review 1st

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MDS LOC Logic Results

DHFS RN review <u>& discussion</u> with NH RNs of:

- EVERY "No LOC" result
  - Denials only if confirmed accurate
  - Normal appeals process
- Any questioned LOC result
  - Please review logic first
  - MOST will involve missing MDS info
- This feedback is part of logic QA/QI

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Summary re Use of MDS LOC Logic

- Will NOT be used for rates
- "Current" (12/05 or 6/06) LOCs for MA residents will be frozen/ extended
- 50% RUGs increasing to 100% RUGS
- MDS Logic WILL do "No Levels" for NEW MA residents—WITH RN Review & Appeals
- MDS LOC Logic will NOT be used for minimal staffing calculations in 2006

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PART 2: OPTIONAL DETAILS

- Questions re Part 1?

- Handouts – 1 doc contains the MDS LOC Logic explained in rest of this web-cast
- PowerPoint contains more background
- All Q & A's will be posted at

http://dhfs.wisconsin.gov/rl_DSL/Training/index.htm

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MDS LOC LOGIC & LTC FS

- WI's Long-Term Care Functional Screen also does NH/Waiver eligibilities & LOCs
- MDS—FS answers cross-feed done
- MDS & FS will almost always yield same LOC results
- Discrepancies usually from inaccurate MDS or FS info
- Or because MDS assumes help is needed, while FS does not

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Background on the MDS Logic

- The MDS LOC logic is an "expert decision system" using best consensus judgment of RNs expert in setting LOC (details later)
  - Expert decision programs run subways, trains, airports, industrial controls; = form of artificial intelligence if complex enough
  - Experts consensus better than 1 expert
  - Based on data, evidence, & decision science
  - Can include "grey areas," best judgments, "hunches" (vs. many old clinical pathways)
- WI DHFS expert RN decision systems development since 1998 (details later)

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Ann Pooler --

- RN with PhD in philosophy
  - RN since 1979: In SNF, nursing internship, ICU, CCU, cardiac rehab, discharge planner, home health
  - WI Medicaid since 1992: Home health, PDN, personal care; LTC redesign, Family Care, Partnership, waivers, mental health, AODA
  - **Decision Logics for WI DHFS**: Home health PAs, LTC Functional Screen, Children's FS, Mental Health/AODA Functional screen, SSA disability determinations
  - Best Practice Guidelines, Trainings, & Workgroup facilitation for Family Care (interdisciplinary teams, consumer outcomes, AODA in LTC, resource allocation decision method, risk-taking guidelines), Mental Health Redesign counties, Partnership Program, various home-& community-based waiver programs, gerontology programs, etc..; grants & system change
  - Taught ethics at UW-Madison

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Benefits to NHs of LOC MDS

- **LESS WORK FOR YOU!** No more submitting paperwork (copying, writing narratives, etc.) for LOC
- More accurate, consistent, reliable decisions (because experts' consensus using your MDS assessment data)
- Feedback channels for questions, case reviews
- FASTER LOC results (no snail mail, etc.)

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Old & New Decision Methods

- Old Method: Trained individual reads documents, notices factors, interprets, uses judgment to apply guidelines—often without seeing person
  - Subjectivity in application & review
  - Adjectives, narratives, judgment, biases
  - Reliability & Validity lower
  - Slow
  - Paperwork burden

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New Decision Method: "Expert Systems"

- "Info" = Gathered directly in clear, objective format (MDS) by on-site assessors (you)
- "Logic" = Best consensus thinking of GROUP of experts (guided toward more logical thinking)
- "Gut feelings," nuances, complexities, inferences can be articulated into logic
- Iterative (gradual, repetitive) development based on testing & feedback
- No erroneous LOC denials
- Seek 100% accuracy (vs ~92% with human reviewers)

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Why Determine LOC from MDS?

- NH LOC logic developed on WI LTC Functional Screen (FS) proven in multiple studies to be accurate
  - Over 6,000 individual case reviews 1998-2003!
  - Numerous large- and small-scale studies
  - On-going QA/QI, with items, instructions, & logic revised if needed
- LTC FS was developed with MDS known

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Why LOC from MDS? (cont'd)

- Avoid redundant work (doing MDS & FS)
- MDS was not developed for LOC, ***but***
  - LTC FS proven to yield correct LOCs
  - MDS provides more clinical details than FS
- Missing from MDS:
  - Medications & MD Orders
  - Narratives
  - Both are key to old BQA decision method

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MDS Is Missing Some Info

Many redundancies (overlaps, repetitions) in logic compensate for missing info

Other items serve as "proxies"—substitutes

e.g., Poor self-care captured in "Monitoring acute condition" or "no self-initiated activities" or is sick (fever, nausea, etc.)

Inferences are built in to logic, e.g.:

If has X condition, needs Y help;

If needs help with X, needs help with Y

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How Was MDS LOC Logic Developed?

- Built from BQA expert logics already done
- Database of FULL MDSs for ALL WI NH residents -- 20,830 (on April 1, 2005)
- Logic tested as developed
- Allowed aggregate & INDIVIDUAL case reviews of full MDS
- Ann Pooler & Marianne Missfeldt, RN—Lead BQA LOC Trainer until Nov. 2004—both doing DHFS LOC logics since 1999

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Why Weren't NH RNs Involved in Development?

- BQA RNs are the LOC decision experts
- Logic must reflect BQA policies & best thinking
- Misunderstandings of BQA policies are common (experience shows)
- DHFS had BQA workgroups on NH LOC in 1999, 2001, and 2002--I.e., already had extensive BQA LOC decision expertise developed and tested
- Every "No Level" will be reviewed

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MDS LOC Logic Development Processes

1. BQA Policies, Statutes, MDS, RAI, & RUGs, & FS LOC Logic Reviewed
2. Rough draft MDS LOC logic sketched out
3. CHSRA* programmed draft logic into dbase of 20,830 full MDSs
4. 8 months of adjusting logic & testing
5. Testing = Overall AND individuals

*CHSRA= Center for Health Systems Research & Analysis, UW-Madison; lead developers of the MDS

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Best Logic vs. Matching BQA

- MDS LOC Logic based on LAST FULL MDS
- BQA LOC with LAST FULL MDS= 0 if person not MA when Full MDS done
- BQA LOC on April 1, 2005 may have been adjusted since last full MDS, i.e.,
- Time lags between MDS data & BQA LOC
- So cannot expect 100% matches
- Section S--NH requested/expected LOC on last full MDS—can differ from BQA LOC

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Best Logic vs. Matching BQA

- Project Goal = No disruption for NHs

"Best logic" vs. "actual decisions" especially with time lag factor required balance:

1. BQA Policies & Statutes
2. Proven BQA LOC Decision Systems
3. Interpreting actual BQA LOC decisions
   - Time lags, acuities, biases (e.g., age)

- Matching BQA LOC decisions as much as possible

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MDS Logic (cont'd)

- BQA LOCs (in database) were used to test impact on LOC of particular clinical details & combinations
  - E.g., age matters: As proxy for frailty, or as bias??
- Data disproved some of our hypotheses
- Logic is data-based except for RN adjustments based on time lags, interpretations of BQA LOC, etc.
- E.g., almost all combo's of higher skilled needs were found in BQA SNFs rather than in BQA ISNs
- MDS Logic corrects for this

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	MDS LOC LOGIC					
BQA LOC	**No Level**	**ICF2**	**ICF1**	**SNF**	**ISN**	**Total**
ICF2	**10**	**13**	**25**	**68**	**3**	**119**
ICF1	**37**	**69**	**258**	**663**	**7**	**1034**
SNF	**51**	**171**	**991**	**16170**	**779**	**18162**
ISN	1		**6**	**820**	688	**1515**
Total	**99**	**253**	**1280**	**17721**	**1477**	**20830**

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MDS LOC Logic—Basic Structure

- Rarely, LOC directly from particular MDS items
  e.g., if Diabetic & receiving daily injections, etc.
- Mostly, MDS Item Answers are assigned to “Weighted categories” = “Groups”
- Items are added within & across Groups
- Can get to complex combo’s/formulas
- Each tested on aggregate & individuals

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MDS Items, Weights, & Logic

Handouts at
http://dhfs.wisconsin.gov/rl_DSL/Training/index.htm

Group A = ISN

- Suctioning
- Total Parenteral Nutrition (TPN)
- Tracheostomy care
- Tube feedings
- Ventilator

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Sliding Scale Insulin

Sliding scale insulin = ISN (since Nov 2004)

- NHs would have to pay vendors to add this to Section S; would take ~ 6 months.
- Clinically imprecise criterion anyway

Instead, per MDS LOC Logic, ISN given for:

- Resident with Diabetes Dx receiving daily injections who has dialysis, wound infection, foot infection (e.g., cellulitis), Stage 3 or 4 ulcer, burn, or other open lesions
- Other factors tested & not supported by the data

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Group B = SNF

- Burns (second or third degree)
- Chair prevents rising, or Limb restraint
- Comatose
- Conditions/diseases lead to instability
- Deterioration in Cognitive Status
- Dialysis
- End-stage disease or Hospice care
- Injections (on 4 of past 7 days)
- IV medication

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Group B = SNF (cont'd)

- Physician Orders changes (on 8 of past 14 days)
- Physician Visits (on 6 of past 14 days)
- Acute episode/flare-up
- Surgical wounds
- Transfusions
- Traumatic brain injury
- Trunk restraint
- Stage 3 or 4 Ulcer(s)
- Stage 2 (3 or more ulcers)
- Wound infection

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SNF = **At least one item in Group B or Group G or Group J**

Group G --Behaviors

- Physically abusive behavior: at least once in past week
- Resists Care: 4+ days in past week
- Socially inappropriate/ disruptive behavior 4+ days in past week
- Verbally abusive behavior 4+days/past wk
- Wandering-at least 1once past week

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SNF = **At least one item in Group B or Group G or Group J**
(cont'd)

Group J --Therapies

- Occupational therapy: 5+ days/past week
- Physical therapy: 5+ days/past week
- Speech therapy: 5+ days/past week

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ICF-1

At least one from Groups C, D, E, K, or M

Group C - Immobility

- Oral feeding by syringe
- Lifted mechanically or manually
- Eating= Extensive or complete dependence
- Bed mobility= Extensive or complete dependence

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ICF-1

At least one from Groups C, D, E, K, or M

Group D –Status **(pg. 1 of 2)**

- Alzheimer's/dementia special care unit
- Enemas/irrigation
- External (condom) catheter
- Indwelling catheter
- Injections 1 to 3 of past 7 days
- Intake/output
- Intermittent catheter
- Monitoring acute medical condition

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ICF-1

At least one from Groups C, D, E, K, or M

Group D –Status (pg. 2 of 2)

- Open lesions other than ulcers, rashes, cuts
- Oxygen therapy
- Pain-Severe pain in past week
- Passive range of motion 3 to 7 of past 7 days
- Respiratory therapy 2 to 7 of past 7 days
- Training in community skills
- Ulcers: Stage 1 (4 or more ulcers)
- Ulcers: Stage 2 (1 or 2 ulcers)

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ICF-1

At least one from Groups C, D, E, K, or M

Group E

- Fecal impaction
- Physician Orders (on 3 to 7 of past 14 days)
- Physician Visits (on 3 to 5 of past 14 days)
- Recurrent lung aspirations in last 90 days
- Septicemia
- Swallowing problem
- Toilet/commode/urinal—Did not use in past week

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ICF-1

At least one from Groups C, D, E, K, or M

Group K--Therapies

- Occupational therapy: 2 to 4 days in past week
- Physical therapy: 2 to 4 days in past week
- Speech therapy: 2 to 4 days in past week

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ICF-1
At least one from Groups C, D, E, K, or M

Group M -- Mentation

- Cognitive Skills/Daily Decision Making = Moderate or severe impairment
- Delusions, Hallucinations, or Periods of altered perception/awareness
- Episodes of disorganized speech
- Unable to recall current season
- Unable to recall that he/she in nursing home
- Unable to recall anything

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Beyond Single Items

For an individual's LOC, logic usually involves:

- Counts of items (particular MDS answers) per Group (assigned weighted categories)
- Combinations & counts of items in different Groups
- Progresses linearly: Checks for ISN, then for SNF, then for ICF1, then for ICF2
- If none of those, is "No LOC"

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LOC = ISN IF:

1. At least 6 items in Group B, OR
2. All of the following are true:
   A. At least 6 items in Groups B and D combined; AND
   B. One item in Group C or E, OR 2 items in Group I or 2 in Group F; AND
   C. At least 10 items in Group S OR at least 6 total from Groups G, J, M, N, H, K, L, and O combined

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LOC = ISN IF ALL ARE TRUE:

A. At least 4 items in Group B
B. At least 6 items in Group B
C. At least 4 items in either Group E or F
D. At least one item in Group C OR at least 4 items in either Group I or R
E. At least 9 items total in Groups G, J, M, N, H, K, L, and)

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SNF IF ONE OF THESE IS TRUE:

A. At least one item in Group B or Group G or Group J
B. At least two items in Group K
C. At least three items in Group M
D. At least four from one Group : Group C or Group D or Group E or Group L
E. 9 items in Group S

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SNF IF ONE OF THESE IS TRUE:

A. At least 5 total from Groups J, K, and L combined
B. At least 7 total from Groups C, D, E, F, H, K, L, M, N, O, P, Q, and R combined
C. At least 4 total from Groups D, E, F combined
D. At least 5 total from tables C, D, E, and F combined
E. At least 14 “ICF1 and ICF2” results

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SNF IF ALL of THESE ARE TRUE:

A. At least 3 items in Group R OR one items in Group C or Q; AND
B. At least 3 items in Group F OR one item in Group D or E; AND
C. At least 3 items in Group T OR one item in Group M,N,O,P,H,K, or L

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SNF IF ALL THESE ARE TRUE:

- At least 4 items in Group B OR at least 6 items in Group D; AND
- At least 4 items in Group E OR at least 4 items in Group F; AND
- At least 4 items in Group R OR at least 4 items in Group I OR one items in Group C; AND
- At least 9 from Groups G, H, J, K, L, M, N, O

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ICF2 IF ANY OF THESE:

- At least one from Groups F, H, L, N, O, P or T; OR
- At least two items in Group Q; OR
- At least three items in Group R; OR
- At least five items in Group S; OR
- Two items in Group S AND at least 1 from both Groups Q and R

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Group	D	E	F	H	I	K	L	T	O	P	R
M	ICF1	ICF1	ICF1	ICF1	ICF1	ICF1	ICF1	ICF1	ICF1	ICF1	ICF1
N	ICF1	ICF1	**ICF2**	**ICF2**	ICF1	ICF1	**ICF2**	**ICF2**	ICF1	ICF1	**ICF2**
D		ICF1	ICF1	ICF1	ICF1	ICF1	ICF1	ICF1	ICF1	ICF1	ICF1
E			ICF1	ICF1	ICF1	ICF1	ICF1	ICF1	ICF1	ICF1	ICF1
F				ICF1	ICF1	ICF1	ICF1	**ICF2**	ICF1	**ICF2**	**ICF2**
H					ICF1	ICF1	**ICF2**	ICF1	ICF1	ICF1	**ICF2**
I						ICF1	ICF1	**ICF2**	ICF1	**ICF2**	--
K							**ICF2**	**ICF2**	ICF1	ICF1	ICF1
L								**ICF2**	**ICF2**	**ICF2**	**ICF2**
T									**ICF2**	**ICF2**	**ICF2**
O										**ICF2**	**ICF2**
P											-
R											

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NO LOC

- No items from Groups A,B,C,D,E,F,G,H, J,K,L,M, N, O, P, S, or T
- No more than one item in Group I or R.
- None of the combo's cited earlier & in handouts.

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NO LOC

- 0 or 1 ADL, not including eating
- No cognitive impairments, no behavioral challenges; no emotional disorders impairing thinking, decision-making, or self-direction (preferences and goals)
- No falls, illnesses, instabilities, treatments
- No impairments to self-management
- No communication impairments.
- (Med management possible, but probably only set-up.)
- No other skilled nursing needs (see next pg)

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Re Skilled Nursing Needs

- You PROVIDE skilled nursing – assessment, care planning, monitoring, etc. for every (potential) NH resident
- MA Eligibility = What individual NEEDS, is UNABLE to do for herself.
- MDS assumes conditions = Needs.
- MDS logic compensates with redundancies & inferences of need for help

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Individuals Found "No LOC"

- 99 people out of 20,830 NH residents
- Many of them use walker, cane, perhaps chair for long distances
  - (Bias vs. needs)
- Perhaps med set up, or might be independent with meds
- Probably MDS not filled out accurately
- No surprises—DHFS will ask for review 1st

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The Rest of LOC Logic Is In Handouts

- MDS LOC logic will be DHFS policy
- Replaces previous BQA LOC guidelines
- May differ from your past experience
- Based on all 20,830 residents
- Q & A's will be posted
- Additional guidelines, etc., based on your questions & feedback
- Implementation is still being worked out!

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Implementation Is Still Being Worked Out

- MDS LOC Logic will be PHASED IN
- MDS Logic will be run at EDS

To be used for:

- NH ELIGIBILITY for New ADMISSIONS
- NH ELIGIBILITY for New MA (switching payer)
- NH Eligibility as Full MDS becomes due
- DHFS RN review of all “No Levels”

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Q & A & Follow Up

All questions & answers re this webcast will be posted at http://dhfs.wisconsin.gov/rl_DSL/Training/index.htm

Contacts

- Implementation, Process Questions: DHCF or EDS
  - Will post contact info with Q & As & forthcoming Memos
- MDS Questions: Your current MDS QA sources
- Clinical Logic Questions only:

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